

IN THE CLAIMS:

1. *(currently amended)* In a network having a plurality of links between nodes and at least one node having an administrative module which provides error data for at least one link, a method of detecting network trouble comprising the steps of:

- (a) detecting a data frame in a signal on a link;
- (b) counting the bits arriving after the detection of the data frame until reaching a predetermined number of bits designating a frame;
- (c) generating an estimated frame signal at the conclusion of the bit counting of step (b);
- (d) comparing the detected data frame of step (a) to the estimated frame of step (c) and defining a frame error to occur if the two signals do not coincide
- ~~(b)~~(e) synchronizing the detection of errors in frames on said link to the timing of the detected data frame so as to avoid overcounting bit errors in the signal on the link; and
- ~~(e)~~(f) calculating the number of frames on said link having errors as an error rate per unit of time.

2. *(original)* The method of claim 1 in which the error rate is calculated as frames errors-per second.

3. *(original)* The method of claim 1 in which error detection for the present data frame is synchronized to the timing of a data frame detected in a sequence of data frames that is continuous with the present data frame.

4. *(original)* The method of claim 1 in which bit error detection for the present data frame is synchronized to the timing of a data frame detected in a sequence of data frames that is not continuous with the present data frame.

5. *(currently amended)* A method of assembling a transmission performance profile for a circuit having multiple links in a network having a plurality of circuits and at

least one node having an administrative module which provides error detector for at least one circuit, the method comprising the steps of:

- detecting a data frame in a signal on a link;
- counting the bits arriving after the detection of the data frame until reaching a predetermined number of bits designating a frame;
- generating an estimated frame signal at the conclusion of the bit counting step;
- comparing the detected data frame of step to the estimated frame and defining a frame error to occur if the two signals do not coincide;
- synchronizing the detection of errors in frames on said link to the timing of the detected data frame so as to avoid overcounting bit errors in the signal on the link;
- calculating the number of frames on said link having errors as an error rate per unit of time; and
- assembling the error rate per unit of time for the links in a given circuit.

6. - 8. *cancelled*

9. (*currently amended*) Apparatus for assembling a transmission performance profile for a circuit having a plurality of links in a network having a plurality of circuits and at least one node having an administrative module which provides error detection for at least one circuit, said apparatus comprising:

- means for detecting a data frame in a signal on a link;
- means for counting the bits arriving after the detection of the data frame until reaching a predetermined number of bits designating a frame;
- means for generating an estimated frame signal at the conclusion of the bit counting;
- means for comparing the detected data frame to the estimated frame and defining a frame error to occur if the two signals do not coincide
- means for synchronizing the detection of errors in frames on said link to the timing of the detected data frame so as to avoid overcounting bit errors in the signal on the link;

means for calculating the number of frames on said link having errors as an error rate per unit of time, and

means for assembling the error rate per unit of time for the links in a given circuit.

10. (original) The apparatus of claim 9 in which bit error detection for the present data frame is synchronized to the timing of a data frame detected in a sequence of data frames that is continuous with the present data frame.

11. (original) The apparatus of claim 9 in which bit error detection for the present data frame is synchronized to the timing of a data frame detected in a sequence of data frames that is not continuous with the present data frame.

12. - 13. *cancelled*